October 15, 1997

A. Richard Metzger, Jr.
Acting Chief, Common Carrier Bureau
Federal Communications Commission
Washington, D.C. 20554

Re: Chicago Field Test, LNP and possible 9-1-1 problem
CC Docket No. 95-116

Dear Mr. Metzger:

I am requesting that the FCC officially adopt and mandate the NENA (National Emergency Number Association) voluntary database standard for LNP so that tens of thousands of LNP customers do not temporarily disappear from 9-1-1 databases for one to three days at a time in some states.

On May 23, 1997, Ms. Regina Keeney, CCB Chief, wrote a letter, re: "FCC Guidance to the Illinois Portability Task Force," which was sent to the task force, c/o Brent Struthers, Illinois Commerce Commission.

In that letter, she offered six areas of guidance, including #5) "The Field Test report should address tests of the ported subscriber's service. As applicable, various components of the telecommunications infrastructure (e.g....enhanced 911...) should be tested."

While the Field Test report should show the successful testing of enhanced 9-1-1, it will not show that part of the reason was the decision by Ameritech, AT&T, MCI, Sprint, TCG/Teleport, and Worldcom/MFS to comply with the voluntary database standards officially approved by the NENA Executive Board, in June of 1997, specifically to minimize the impact of LNP on 9-1-1 ALI (address location) databases.

My concern is to be sure that the appropriate people at the FCC are aware that at least one state outside the Midwest Region may not comply with the voluntary standards when LNP becomes operational.

This would mean that if a state with 10 million wireline phones had an estimated churn rate (customers changing service providers) of 10 per cent due to LNP, one million ALI database records would disappear from 9-1-1 ALI databases in that state for from one to three days during the year of that 10 per cent churn rate. The reasons for the disappearance would be the advent of LNP and the major 9-1-1 service provider(s) in that state refusing to cooperate with a voluntary NENA standard.

This potential major disservice to unsuspecting customers could be totally prevented by action of the FCC mandating the new NENA database standard (attached).

The NENA committee that developed this standard included 9-1-1 representatives from most major service providers in the United States and Canada, including TCG, U S West, NYNEX, Bell Sygma, Pacific Bell, ALLTEL, Lucent Technologies, Ameritech, ICG, Time Warner Communications, GTE, Bell Atlantic, MCI Metro, Southwestern Bell, Sprint, Bell South, ICI, Bell Canada, and Winstar Telecommunications. Also represented was SCC, a major 9-1-1 database provider throughout the country

Currently, when a customer changes service providers and does not move, the customer's 9-1-1 ALI record is deleted with information supplied by the current service provider and then a new 9-1-1 ALI record is added from data supplied by the new service provider. This delete/add process can take one to three days during which there is no address information available to a public safety answering point (PSAP) if the customer has an emergency and dials 9-1-1, depending on the area of the country, the service providers involved and the 9-1-1 database provider.

Following the new NENA 9-1-1 database standard specifically for LNP, a customer's 91-1-address (ALI) record and other associated data would not be deleted when the customer was changing service providers and keeping the same phone number. All 9-1-1 ALI records in any area where LNP was available, would be populated with a company ID (a 3 to 5 digit alpha-numeric code, representing the facilities-based service provider of the customer).

The donor service provider would send through an "unlock," which would delete that company ID only, and the recipient service provider would next send through a "migrate" record, which would re-populate the ALI record with the appropriate information concerning the customer, and the company-ID of the customer's new service provider

At no time during the LNP process would the customer be without all the features of enhanced 9-1-1, particularly of the immensely-important feature of address information being immediately available to the PSAP

It is expected that LNP will greatly enhance the competitive nature of the local phone market, so that a much greater percentage of customers will start changing from one service provider to another.

My understanding of one of the major reasons that the FCC chose the LRN (location routing number) method as the national mandated method for LNP over QOR (query on release) is that with QOR, call set up time would increase just over one second, and so the incumbent service provider could use this to convince customers not to change service providers.

If the national NENA standard is not similarly mandated by the FCC on a national basis and an incumbent service provider (very often, this company is also the 9-1-1 service and database provider) chose not to follow the standard, the same incumbent service provider could tell customers that if they chose to change service providers, their 9-1-1 service would not be as good.

I believe having inferior 9-1-1 service would be a stronger selling point as a reason not to change providers, than having one second added to call set up of a regular phone call.

Thank you for any immediate consideration of this matter that may be offered.

Just for information, my background in this area is that since November, 1996, representing the Illinois chapter of NENA, particularly those members in the Chicago and St. Louis MSAs, I have been attending and offering input to the various groups within the Illinois Number Portability Task Force, including the steering committee, the operations subcommittee, the test team committee, and the 9-1-1 subcommittee (I do believe that the Midwest Region is the only region with an officially-recognized 9-1-1 subcommittee as part of its LNP implementation committee structure).

I also have served on the NENA LNP database study group that developed the special database standards to be sure the public did not receive any less 9-1-1 service during the LNP process (proving that a very large committee made up of service provider and switch vendor employees, who are dedicated to 9-1-1, can reach a major decision for the public good in a minimum amount of time).

With 20 years of employment in the public safety communications field, I have been a supervisor for about 19 years at a police/fire communications center that has had enhanced 9-1-1 for almost 7 years.

While I do have some other concerns about LNP and 9-1-1, I will address them at another time and/or through other venues, as I believe that the mandating of a national 9-1-1 database standard in an LNP environment is of critical importance.

Again, thank you very much for your prompt consideration.

Sincerely,

Rick Jones
Loves Park 9-1-1 supervisor

cc: Illinois Number Portability Task Force and ICC c/o Brent Struthers
Barb Thornburg, NENA Data Technical Committee Chair
Norm Forshee, President, Illinois chapter, NENA

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NENA
Recommended Standards
For
Service Provider Local Number Portability

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Prepared by:
National Emergency Number Association (NENA) Data Standards Technical Committee
Service Provider Local Number Portability Study Group

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INTRODUCTION

1.1 Purpose

This document sets forth National Emergency Number Association (NENA) standards for all Local Service Providers involved in providing dial tone to end users and involved in Service Provider Local Number Portability.

1.2 Copyright and Responsibility

This practice was written by the NENA Data Standards Technical Committee in conjunction with the Multiple Local Service Providers study group. The NENA Executive Board has recommended this practice for industry acceptance and use. For more information about this practice, contact:

Billy Ragsdale
NENA Standards Technical Liaison
404-329-4146

or

Barbara M. Thornburg
NENA Data Standards Technical Committee Chair
612-553-7879

1.3 Disclaimer

This document has been prepared solely for the voluntary use of 9-1-1 service providers, 9-1-1 equipment vendors, and participating Local Service Providers.

By using this practice, the user agrees that NENA will have no liability for any consequential, incidental, special, or punitive damages that may result.

1.4 Overview

This document defines the recommendations for the exchange of telephone number data with a 9-1-1 Service Provider by companies participating in Service Provider Local Number Portability. It anticipates the protection of E9-1-1 data integrity, content, and call delivery regardless of dial tone provider. It is the goal of these standards to support current and future development consistent with the concept of "One Nation, One Number." It is assumed that Federal, State, or Local legislation will supersede these recommendations.

1.5 Reason for Reissue

NENA reserves the right to modify this technical reference. When ever it is reissued, the reason(s) will provided in this paragraph

1.6 Acrônyms/Terms

Acronym/Term	Definition
Automatic Location Information (ALI)	The automatic display of the street address and/or location associated with the telephone number (ANI) which is displayed on a screen at the telecommunicators position.
Automatic Number Identification (ANI)	The automatic display of the telephone number of the calling party at the telecommunicators position.
Company Identifier (Company ID)	A NENA approved 3-5 character identity chosen by the Local Service Provider that distinguishes the entity providing the dial tone to the end user. The Company Identifier is maintained by NENA in a nationally accessible data base, and is an entry item in *NENA 02-001, NENA Recommended Formats for Data Exchange*
Completion Date	Applies to the service order process date that does the physical disconnection of dial tone by the donor company and the physical connection of dial tone by the recipient company to an end user.
Data Exchange	The NENA Data Standards Subcommittee has established multiple versions of standard data formats for use by data exchange partners when exchanging E9-1-1 ALI data base information, referenced as *NENA 02-001, NENA Recommended Formats for Data Exchange*.
Donor Company	The Local Service Provider responsible for the end user's telephone service and E9-1-1 data prior to the migration of the telephone number to the recipient company
End User	The customer of the Local Service Provider.
E9-1-1	Enhanced 9-1-1 (name, address, and telephone number displayed)

1.6 Acronyms/Terms cont'd

Acronym/Term	Definition
Local Service Provider (LSP)	A term intended to encompass all companies providing dial tone to end users, including but not limited to Incumbent Local Exchange Carriers (ILEC), Alternative Local Exchange Carriers (ALEC) and PBX providers.
Migration	The term used to describe the inward transaction the recipient company submits to the 9-1-1 Service Provider that signifies movement of telephone service from a donor company.
NENA	National Emergency Number Association - A not for profit association furthering the goal of one nation one number , that number being 9-1-1.
Ported In Telephone Number	A Local Service Provider's term for the end user's telephone number migrated from a different Local Service Provider.
Ported Out Telephone Number	A Local Service Provider's term for the end user's telephone number migrated to a different Local Service Provider.
Recipient Company	The new Local Service Provider responsible for the end user's telephone service and E9-1-1 data after the migration of the telephone number from a donor company.
Relock	The recipient company will secure the record when the migration transaction replaces the customer details and Company ID of the donor company. Also allows the donor company to secure a telephone number record that has been unlocked pending a migration to a different Local Service Provider. (See Unlock)
Service Provider Local Number Portability (SPLNP)	Allows the end user to retain their telephone number, providing they remain within the same rate area or rate district (where established), when changing from one service provider to another.

1.6 **Acronyms/Terms cont'd**

Acronym/Term	Definition
Unlock	The action required by a 9-1-1 Service Provider upon notification from a donor company that makes the end user's telephone number record available for the recipient company to replace the customer details and Company ID
9-1-1 Service Provider	The entity(ies) responsible for the ALI system data management and/or retrieval. i.e., a Telephone Company, Data base or Customer Provided Equipment (CPE) vendor, PSAP or County

1.7 **Reasons to Implement and Benefits**

Industry adoption of the standard will:

-Ensure the consistent provision of ALI data
-Ensure reliable 9-1-1 call delivery
-Improve communications and remove barriers across entities
-Assist Local Service Providers toward compliance with *the FCC order CC Docket 95-116*, complying with Local Number Portability

1.8 **Implementation**

How: Use of the standards will provide the basis for agreements between the Local Service Provider and the 9-1-1 service provider.

When: Should be completed prior to the FCC mandated SPLNP conversion date schedule.

See also related standards document *NENA 02-005, NENA Recommended Standards for Local Service Providers.*

1.9 Acknowledgments

The standards have been created through the cooperative efforts of:

NENA Data Technical Committee - Judy Cortiana Chairperson

Local Number Providers Study Group

Judy Cortiana	Pacific Bell Chairperson
Jacki Balto	TCG
Terri Beager	USWest
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Mary Sharp	SCC
Barb Thornburg	Winstar Telecommunications, Chairperson
Larry Vasquez	AT&T
Carol Wagner	CCI
Randy West	BellSouth

STANDARDS

2.1 Allow any certified company to send end user telephone number records to a 911 Service Provider for any valid NPA-NXX that has access to 9-1-1.

2.2 Adopt the use of the Company ID on all transactions and include on all embedded telephone number records in the 911 data base. The telephone number and Company ID relationship will remain the same until the record is unlocked and migrated or completely disconnected. (*NENA does not recommend a data structure with one telephone number having more than one Company ID.*)

2.3 The 9-1-1 Service Provider and Local Service Provider must work together to modify the embedded telephone numbers to include the 3-5 character Company ID as referenced in the document "*NENA Company ID Registration Service*" available through the NENA National office. This should be completed prior to the FCC mandated SPLNP conversion date schedule

2.4. The ported out telephone numbers should remain in the 911 data base for ALI retrieval until the migration transaction from the new service provider successfully updates the record. This supports the expectation of uninterrupted 9-1-1 service.

2.5 The new service provider will send a complete telephone number record to migrate the end user's service, not just the telephone number and Company ID

2.6 The following edits for the C and D function codes in *the NENA-02-001, NENA Recommended Formats for Data Exchange* for transactions are in addition to any existing edits:

C -create error condition if Company ID doesn't match between the embedded telephone number record in the 9-1-1 data base and the update transaction.

D -create error condition if Company ID doesn't match between the embedded telephone number record in the 9-1-1 data base and the delete transaction.

STANDARDS cont'd

2.7 Create 2 additional function codes for *NENA-02-001, NENA Recommended Formats for Data Exchange* to assure data integrity:

U -Unlock telephone record transaction sent by the donor company. This will make the telephone number available for the recipient company to overwrite the embedded telephone number record. The "U" function code requires a match of Company ID.

M -Inward migration transaction sent by the recipient company. This transaction requires an "unlocked" record in the 9-1-1 data base and will replace the customer information and the Company ID on the "unlocked" record. The "M" function code does not require a match of Company ID. If there is not a record with the same telephone number in the 9-1-1 data base the "M" transaction will be treated as an error with a unique error code.

2.8 The 9-1-1 Service Provider should make every effort where technically feasible to minimize error reporting to the recipient company when an "M" transaction is received before the corresponding "U" transaction. The 9-1-1 Service Provider must notify the recipient company whenever an "M" transaction is not successfully processed. This can be done as part of the normal reporting process.

The 9-1-1 Service Provider will reprocess all "M" transactions that did not successfully process against an unlocked record, a minimum of one additional time in one additional business day. "M" records to be reprocessed will be treated as a warning with identification of the donor company. If the final "M" attempt fails, the transaction will be treated as an error.

2.9 The service orders should be completed on the date (completion date) the porting activities occur. It is recommended that upon order completion, the "U" transaction will be sent by the donor company and the "M" transaction will be sent by the recipient company to the 9-1-1 Service Provider.

Create a unique informational message code if an "M" transaction is processed and the corresponding embedded data base record remains locked.

Create a unique error condition code identifying when an "M" transaction reprocessing fails in the attempt to update the 9-1-1 data base.

2.10 The 9-1-1 Service Provider must make an exception report(s) available to the donor company if the embedded telephone number record has been in an unlocked state for a period of time not less than 7 calendar days. Upon investigation, the donor company may relock the embedded record using an "M" function code.

2.11 It is expected that cooperative efforts occur between Local Service Providers to resolve all error conditions in a timely manner.